WHAT IS CLAIMED IS:

1. A method for forming an electroluminescent lamp that includes an electroluminescent active layer, the method comprising:

a) applying a first conductive layer to a substrate wherein the first conductive layer is an opaque conductive layer or a transparent conductive layer;

b) applying a light-producing layer to the first conductive layer wherein the light-producing layer is:

1. an electroluminescent active layer;

2. a multilayer construction comprising a dielectric layer and an electroluminescent active layer wherein the dielectric layer is applied to the first conductive layer before the electroluminescent active layer is applied; or

3. a multilayer construction comprising a dielectric layer and an electroluminescent active layer wherein the electroluminescent active layer is applied to the first conductive layer before the dielectric layer is applied; and

c) applying a second conductive layer to the light-producing layer wherein the second conductive layer is an opaque conductive layer or a transparent conductive layer;

with the proviso that the first conductive layer and the second conductive layer are not both opaque conductive layers and wherein the electroluminescent layer is made by a method comprising:

1) applying an electroluminescent composition wherein the electroluminescent composition has the characteristic of being curable into the electroluminescent active layer when irradiated with

UV light and does not contain any significant amount of volatile organic solvents that do not become incorporated in the electroluminescent active layer after curing; and

2) curing the electroluminescent composition with UV light for a sufficient time to form the electroluminescent active layer.

wherein the electroluminescent composition does not contain any significant amount of volatile organic solvents that do not become incorporated in the electroluminescent layer after the electroluminescent composition is cured.

2. The method of claim 1, wherein the electroluminescent composition comprises:

at least one oligomer selected from the group consisting of an acrylated urethane oligomer, an acrylic oligomer, an epoxy oligomer, a polyester oligomer, and mixture thereof;

an acrylate monomer;

a photoinitiator; and

a phosphor.

3. The method of claim 2, wherein the acrylated monomer is an isobornyl acrylate.

4. The method of claim 3, wherein:

the at least one oligomer is present in an amount of about 10% to 40% of the weight of the electroluminescent composition;

the acrylate monomer is present in an amount of about 4% to 30% of the weight of the electroluminescent composition;

the photoinitiator is present in an amount of about 0.5% to 6% of the weight of the electroluminescent composition; and

the phosphor is present in an amount of about 28% to 80% of the weight of the electroluminescent composition;

5. The method of claim 3, wherein the at least one aliphatic acrylated oligomer is at least one urethane oligomer.

6. The method of claim 4, wherein the electroluminescent composition further comprises:

an adhesion promoter in an amount of about 1% to 10% of the weight of the composition; and

a flow promoting agent in an amount of 0.1 % to 5% of the weight of the electroluminescent composition.

7. The method of claim 6, wherein:

the at least one oligomer is present in an amount of about 34 % of the weight of the electroluminescent composition;

the acrylate monomer is present in an amount of about 20% of the weight of the electroluminescent composition;

the photoinitiator is present in an amount of about 3% of the weight of the electroluminescent composition; and

the phosphor is present in an amount of about 33% of the weight of the electroluminescent composition;

an adhesion promoter in an amount of about 7% of the weight of the composition; and

a flow promoting agent in an amount of 3% of the weight of the electroluminescent composition.

8. The method of claim 7, wherein:

the at least one oligomer is present in an amount of about 12% of the weight of the electroluminescent composition;

the acrylate monomer is present in an amount of about 8% of the weight of the electroluminescent composition;

the photoinitiator is present in an amount of about 1% of the weight of the electroluminescent composition; and

the phosphor is present in an amount of about 75% of the weight of the electroluminescent composition;

an adhesion promoter in an amount of about 3% of the weight of the composition; and

a flow promoting agent in an amount of 1% of the weight of the electroluminescent composition.

9. The method of claim 3, wherein the method of applying the electroluminescent composition is spraying.

10. The method of claim 3, wherein the method of applying the electroluminescent composition is screen-printing.

11. The method of claim 3, wherein the method of applying the electroluminescent composition is dipping.

12. The method of claim 3, wherein the method of applying the electroluminescent composition is brushing.

13. The method of claim 3, wherein the method of applying the electroluminescent composition is the flexographic method. —

14. The method of claim 3, wherein the aliphatic acrylated oligomer in the mixture is selected from the group consisting of:

a) aliphatic urethane diacrylate diluted 10% by weight with 1,6-hexanediol diacrylate;

b) aliphatic urethane triacrylate diluted 15% by weight with 1,6-hexanediol diacrylate);

c) aliphatic urethane diacrylate blended with 20% by weight tripropylene glycol diacrylate;

d) aliphatic urethane diacrylate blended with 25% by weight ethoxylated trimethylol propane triacrylate;

e) aliphatic urethane diacrylate blended with 19% by weight 2(2-ethoxyethoxy)ethyl acrylate;

f) aliphatic urethane diacrylate blended with 20% by weight tripropylene glycol diacrylate;

g) aliphatic urethane diacrylate blended with 20% by weight tripropylene glycol diacrylate;

h) aliphatic urethane diacrylate blended with 25% by weight tripropylene glycol diacrylate;

i) aliphatic urethane diacrylate; and

j) mixtures thereof.

15. The method of claim 3, wherein the acrylate monomer in the mixture is selected form the group consisting of acrylate, methacrylate, and mixtures thereof.

16. The method of claim 3, wherein the photoinitiator is selected from the group consisting of:

1-hydroxycyclohexyl phenyl ketone;

2-methyl-1-[4-(methylthio)phenyl]-2-morpholino propan-1-;

the combination of 50% 1-hydroxy cyclohexyl phenyl ketone and 50% benzophenone;

2,2-dimethoxy-1,2-diphenylethan-1-one;

the combination of 25% bis(2,6-dimethoxybenzoyl-2,4-, 4-trimethyl pentyl phosphine oxide and 75% 2-hydroxy-2-methyl-1-phenyl-propan-1-one;

2-hydroxy-2-methyl-1-phenyl-1-propane;

the combination of 50% 2,4,6-trimethylbenzoyldiphenyl-phosphine oxide and 50% 2-hydroxy 2-methyl-1-phenyl-propan-1-one;

mixed triaryl sulfonium hexafluoroantimonate salts, mixed triaryl sulfonium hexafluorophosphate salts; and

mixtures thereof.

17. The method of claim 2, wherein the first conductive layer is an opaque conductive layer and the second conductive layer is a transparent conductive layer.

18. The method of claim 2, wherein the first conductive layer is a transparent conductive layer and the second conductive layer is an opaque conductive layer.

19. The method of claim 2, wherein the first conductive layer is a transparent conductive layer and the second conductive layer is a transparent conductive layer.

20. The method of claim 2 wherein the first conductive layer or the second conductive layer is made by the process comprising:

a) applying an opaque conductive composition wherein the opaque conductive composition is capable of being cured into the transparent conductive layer when irradiated with UV light; and

b) curing the opaque conductive composition with UV light for a sufficient time to form the first conductive layer.

21. The method of claim 20, wherein the opaque conductive composition comprises comprising:

a photocurable organic mixture;

a photoinitiator;

silver powder; and

silver flakes.

22. The method of claim 21, wherein the photocurable organic mixture comprises:

an aliphatic acrylated urethane oligomer;

an acrylated epoxy oligomer; and

an isobornyl acrylate monomer.

23. The method of claim 22, wherein the aliphatic acrylated urethane oligomer is present in an amount of about 3% to 8% of the silver composition.

24. The method of claim 22, wherein the aliphatic acrylated urethane oligomer is present in an amount of about 8% of the silver composition.

25. The method of claim 22, wherein the acrylated epoxy oligomer is present in an amount of about 2% to 4% of the silver composition.

26. The method of claim 22, wherein the acrylated epoxy oligomer is present in an amount of about 3% of the silver composition.

27. The method of claim 22, wherein the isobornyl acrylate monomer is present in an amount of about 4% to 8% of the silver composition.

28. The method of claim 22, wherein the isobornyl acrylate monomer is present in an amount of about 5% of the silver composition.

29. The method of claim 22, wherein the silver powder is present in an amount of about 50% to 60% of the silver composition.

30. The method of claim 22, wherein the silver powder is present in an amount of about 52% of the silver composition.

31. The method of claim 22, wherein the silver flake is present in an amount of about 25% to 35% of the silver composition.

32. The method of claim 22, wherein the silver flake is present in an amount of about 30% of the silver composition.

33. The method of claim 22, wherein the photoinitiator is present in an amount of about 3% to 6% of the silver composition.

34. The method of claim 22, wherein the photoinitiator is present in an amount of about 5% of the silver composition.

35. The method of claim 22, wherein the photocurable organic mixture further comprises a flow promoting agent.

36. The method of claim 35, wherein the flow agent is present in an amount of about 0.1% to 2% of the silver composition.

37. The method of claim 35, wherein the flow agent is present in an amount of about 1% of the silver composition.

38. The method of claim 22, further comprising an adhesion promoter.

39. The method of claim 22, wherein the photocurable organic mixture comprises:

an acrylated epoxy oligomer;

an isobornyl acrylate monomer; and

a flow promoting agent.

40. The method of claim 2, wherein when the light-producing layer includes a dielectric layer, the dielectric layer is made by the method comprising:

a) applying a dielectric composition wherein the dielectric composition is capable of being cured into the dielectric layer when irradiated with UV light; and

b) curing the dielectric composition with UV light for a sufficient time to form the dielectric layer.

41. The method of claim 40, wherein the dielectric composition comprises:

a photocurable organic mixture;

dielectric material; and

a photoinitiator.

42. The method of claim 41, wherein the photocurable mixture comprises:

at least one oligomer is selected from the group consisting of an acrylated urethane oligomer, an acrylic oligomer, an epoxy oligomer, a polyester oligomer, and mixture thereof; and

an isobornyl acrylate monomer.

43. The method of claim 41, wherein the dielectric material is a nonconductive metal oxide or a mixture of nonconductive metal oxides.

44. The method of claim 41, wherein the dielectric material is selected from the group consisting of titanium oxide, barium titanate, zirconium oxide, and mixtures thereof.

45. The method of claim 41, wherein the photocurable mixture further comprises a flow promoting agent.

46. The method of claim 45, wherein the photocurable mixture further comprises an adhesion promoter.

47. The method of claim 46, wherein the at least one oligomer is present in an amount of about 10% to 40% of the total weight of the dielectric composition;

the isobornyl acrylate monomer is present in an amount of about 5% to 30% of the total weight of the dielectric composition;

the dielectric material is present in an amount of about 30% to 80% of the total weight of the dielectric composition;

the photoinitiator is present in an amount of about 1% to 12% of the total weight of the dielectric composition;

the flow promoting agent is present in an amount of about 0.5% to 10% of the total weight of the dielectric composition; and

the adhesion promoter is present in an amount of about 1% to 10% of the total weight of the dielectric composition.

48. The method of claim 2, wherein the first conductive layer or the second conductive layer or both the first conductive layer and second conductive layer are made by the process comprising:

a) applying a transparent conductive composition wherein the transparent conductive composition is capable of being cured into the conductive layer when irradiated with UV light; and

b) curing the transparent conductive composition with UV light for a sufficient time to form the second conductive layer.

49. The method of claim 48, wherein the transparent conductive composition comprises:

a photocurable organic mixture;

a conductive powder; and

a photoinitiator.

50. The method of claim 49, wherein the photocurable organic mixture comprises:

at least one aliphatic acrylated oligomer;

an acrylated epoxy oligomer; and

an isobornyl acrylate monomer.

51. The method of claim 50, wherein the photocurable organic mixture further comprising a flow promoting agent.

52. The method of claim 51 wherein the acrylated aliphatic oligomer mixture is about 10 % to 40 % of the weight of the transparent conductive composition;

the acrylated epoxy oligomer is about 3 % to 11 % of the weight of the transparent conductive composition;

the isobornyl acrylate monomer is about 10 % to 40 % of the weight of the transparent conductive composition;

the photoinitiator is about 2 % to 10 % of the weight of the metallic composition;

the flow promoting agent is present in an amount of about 0.1 % to 8 % of the weight of the transparent conductive composition; and

the conductive powder is present in an amount of about 20 % to 50% of the weight of the transparent conductive composition.

53. The method of claim 52, wherein the acrylated aliphatic oligomer mixture is about 20 % to 30 % of the weight of the transparent conductive composition;

the acrylated epoxy oligomer is about 5 % to 9 % of the weight of the transparent conductive composition;

the isobornyl acrylate monomer is about 20 % to 35 % of the weight of the transparent conductive composition;

the photoinitiator is about 4 % to 6 % of the weight of the metallic composition;

the flow promoting agent is present in an amount of about 3 % to 5 % of the weight of the transparent conductive composition; and

the conductive powder is present in an amount of about 30 % to 40% of the weight of the transparent conductive composition.

54. The method of claim 53 wherein the acrylated aliphatic oligomer mixture is about 27 % of the weight of the transparent conductive composition;

the acrylated epoxy oligomer is about 7 % of the weight of the transparent conductive composition;

the isobornyl acrylate monomer is about 28 % of the weight of the transparent conductive composition;

the photoinitiator is about 5 % of the weight of the metallic composition;

the flow promoting agent is present in an amount of about 3.5 % of the weight of the transparent conductive composition; and

the conductive powder is present in an amount of about 33 % of the weight of the transparent conductive composition.

55. The method of claim 47, wherein the method of applying the transparent conductive composition is spraying.

56. The method of claim 47, wherein the method of applying the transparent conductive composition is screen printing.

57. The method of claim 47, wherein the method of applying the transparent conductive is dipping.

58. The method of claim 47, wherein the method of applying the transparent conductive is brushing.

59. The method of claim 47, wherein the method of applying the transparent conductive composition is by the flexographic method.

60. The method of claim 50, wherein the isobornyl acrylate monomer is selected from the group consisting of isobornyl acrylate, isobornyl methacrylate, and mixtures thereof.

61. The method of claim 50, wherein the photoinitiator is selected from the group consisting of:

1-hydroxycyclohexyl phenyl ketone;

2-methyl-1-[4-(methylthio)phenyl]-2-morpholino propan-1-;

the combination of 50% 1-hydroxy cyclohexyl phenyl ketone and 50% benzophenone;

2,2-dimethoxy-1,2-diphenylethan-1-one;

the combination of 25% bis(2,6-dimethoxybenzoyl-2,4-, 4-trimethyl pentyl phosphine oxide and 75% 2-hydroxy-2-methyl-1-phenyl-propan-1-one;

2-hydroxy-2-methyl-1-phenyl-1-propane;

the combination of 50% 2,4,6-trimethylbenzoyldiphenyl-phosphine oxide and 50% 2-hydroxy 2-methyl-1-phenyl-propan-1-one;

mixed triaryl sulfonium hexafluoroantimonate salts, mixed triaryl sulfonium hexafluorophosphate salts; and

mixtures thereof.

62. The method of claim 50, wherein the acrylated epoxy oligomer is selected from the group consisting of:

novolac epoxy acrylate diluted 20 % by weight with tripropylene glycol diacrylate;

difunctional bisphenol based epoxy acrylate; and

mixtures thereof.

63. The method of claim 2, further comprising:

a) applying a clear-coat composition to the electroluminescent active layer wherein the clear-coat composition is capable of being cured into the dielectric layer when irradiated with UV light; and

b) curing the clear-coat composition applied to the electroluminescent layer with UV light for a sufficient time to form the clear-coat.

64. A method for forming an electroluminescent lamp on a substrate, the method comprises:

a) applying an opaque conductive composition to a substrate wherein the opaque conductive composition has the characteristic of being curable into an conductive layer when irradiated with UV light;;

b) curing the opaque conductive composition applied to the substrate with UV light for a sufficient time to form the opaque conductive layer on the substrate;

c) applying an electroluminescent composition to the opaque conductive layer wherein the electroluminescent composition has the characteristic of being curable into an electroluminescent active layer when irradiated with UV light;

d) curing the electroluminescent composition applied to the opaque conductive layer with UV light for a sufficient time to form the electroluminescent active layer;

f) applying a dielectric composition to the electroluminescent active layer wherein the dielectric composition has the characteristic of being curable into a dielectric layer when irradiated with UV light;

g) curing the dielectric composition applied to the substrate with UV light for a sufficient time to form the dielectric layer;

h) applying a transparent conductive composition to the dielectric layer wherein the transparent conductive composition is capable of being cured into a transparent conductive layer when irradiated with UV light; and

i) curing the transparent conductive composition applied to the dielectric layer with UV light for a sufficient time to form the transparent conductive layer.

65. A UV curable dielectric composition comprising:

a photocurable organic mixture;

dielectric material; and

a photoinitiator.

66. The dielectric composition of claim 65, wherein the photocurable mixture comprises:

at least one oligomer is selected from the group consisting of an acrylated urethane oligomer, an acrylic oligomer, an epoxy oligomer, a polyester oligomer, and mixture thereof; and

an isobornyl acrylate monomer.

67. The dielectric composition of claim 65, wherein the dielectric material is a nonconductive metal oxide.

68. The dielectric composition of claim 65, wherein the dielectric material is selected from the group consisting of titanium oxide, barium titanate, zirconium oxide, and mixtures thereof.

69. The dielectric composition of claim 65, wherein the photocurable mixture further comprises a flow promoting agent.

70. The dielectric composition of claim 69, wherein the photocurable mixture further comprises an adhesion promoter.

71. The dielectric composition of claim 70, wherein:

the acrylated aliphatic urethane oligomer is present in an amount of about 10% to 40% of the total weight of the dielectric composition;

the isobornyl acrylate monomer is present in an amount of about 5% to 30% of the total weight of the dielectric composition;

the dielectric material is present in an amount of about 30% to 80% of the total weight of the dielectric composition;

the photoinitiator is present in an amount of about 1% to 12% of the total weight of the dielectric composition;

the flow promoting agent is present in an amount of about 0.5% to 10% of the total weight of the dielectric composition; and

the adhesion promoter is present in an amount of about 1% to 10% of the total weight of the dielectric composition.